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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/760,786

01/17/2001

Hirokazu Sakai

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05/24/2004

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ALEXANDRIA, VA 22314

EXAMINER

DEMILLE, DANTON D

ART UNIT

PAPER NUMBER

3764

DATE MAILED: 05/24/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/760,786

Applicant(s)

SAKAI ET AL.

Examiner

Danton DeMille

Art Unit

3764

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 10 March 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 16-20 and 23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 16-20 and 23 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948)                                    | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION**

***Claim Rejections - 35 USC § 112***

- 1. Claims 16-20 and 23 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.**
2. It is not clear what applicant is attempting with the language that recites “the imaginary concave plane has edge portion(sic)”. It is not clear how an imaginary concave plane has edge portions. It is a continuous surface that doesn’t appear to have edges. Moreover, it is made up of the apices of the plurality of projections which is an incomplete surface. It is not a continuous surface to have edge portions. It is also not clear how these edge portions then “gradually decrease height(sic)” toward midpoints of the edge portions. How does edge portions decrease in height? It is not clear how edge portions have a height. An imaginary plane does not have a height. Moreover, it is not clear how these edge portions have a midpoint. How does the edge portions have a length? What are the boundaries of the edge portions? The claim already recites the apices of the projections form an imaginary concave plane. It is not clear how this further defines the invention.
3. It is not clear how claim 19 further limits claim 23. Claim 19 recites specific dimensions for the plurality of projections however claim 23 already recites these same dimensions.

***Claim Rejections - 35 USC § 103***

- 4. Claims 23 and 16-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Aichinger (German 0096102) in view of Harris, Van Sant and Homma et al.**

5. Aichinger teaches the heart of applicant's invention. Aichinger teaches a detergent, a detergent container having a body and a cover, the cover being detachably attached to the upper portion of the body having a side surface with a plurality of projections with the apices of the projections forming an imaginary curved plane. The choices of the detergent, inner cap and configuration of the projections appear to be well within the realm of the artisan of ordinary skill. The modification of any one of these details does not affect the overall performance of the device and no unexpected results occur. There is no criticality to any one of these details.

6. The outer cover of Aichinger already has an inner cover 9 covering the opening 1. There is no unobviousness to provide an additional cover over the container opening to seal the contents so that the contents doesn't spill when the outer cover is removed during use. Harris teaches just such a convention. Figure 3 shows a container with an outer cover detachably attached to the upper portion of the body without a removable inner cover. Figure 2 teaches the provision of including a removable inner cover sealing the container opening. Obviously you can have it either way. With an additional cover or without depending on the intended use. It would have been obvious to one of ordinary skill in the art to modify Aichinger to include an inner cover over the container opening as taught by Harris to prevent the contents from spilling when the outer cover is removed and used separately.

7. There is also no unobviousness to the shape of the projections. The shape of the projections can be modified to better conform to the shape of the human body as desired. Aichinger already teaches the projections form a curved shape to conform to the shape of the head. It is not an inventive step to do the same thing only a little differently. Van Sant teaches that the height of the projections can decrease toward the center portion to form an imaginary

concave plane, page 2, lines 25-29, "The projections 14 do not stand up as high as the projections 15, thus affording substantially concave points of contact adapted to more or less conform to the contour of the head." It would have been obvious to one of ordinary skill in the art to further modify Aichinger to shape the ends of the projections to be concave as taught by Van Sant to better conform the surface of the projections to the shape of the human head. The shampoo container of the instant invention and the prior art are applying shampoo to the head of the user and working it into the hair by using the projections. Aichinger teaches a curved shape to the projections to conform to the shape of the head and Van Sant teaches another obvious equivalent alternative shape which is more convex to better conform to the shape of the head. The head is convex and to shape the ends of the projections to conform to the convex shape of the head would have been an obvious to one of ordinary skill in the art as exemplified by Van Sant.

8. Every element of the detergent claimed is found in Homma. Using a conventional shampoo such as one that includes a cationic polymer, nonionic surface active agent, alcohol and water would have been an obvious provision in Aichinger or Harris. Homma teaches such a shampoo composition that includes 0.05 to 2.5 % cationic polymer (abstract), nonionic surface active agents (column 2, lines 4-5), alcohol (column 5, line 14) and the balance with water. It would have been obvious to one of ordinary skill in the art to further modify Aichinger and use a conventional shampoo such as taught by Homma to complete the shampoo container.

9. Regarding the last paragraph of claim 23, there appears to be no unobviousness to the specific dimensions claimed. These dimensions appear to be that of any conventional projection in the prior art. These dimensions do not appear to be critical or create any unexpected results.

They appear to be comprehended by the prior art. Any specific dimension would be well within the realm of the artisan of ordinary skill to find optimum results through routine experimentation.

10. Regarding claims 16-18, Homma teaches each of these limitations. Homma teaches the cationic polymer compound cationic cellulose in column 4, line 53. Homma teaches the nonionic surface active agent polyoxyethylene alkyl ethers in column 2, lines 56-57. Homma teaches ethanol in column 5, line 14

11. Regarding claim 20, the density of the projections also appear to be well within the realm of the artisan of ordinary skill. There appears to be no criticality or unexpected results to these densities. They appear to be comprehended by the prior art.

#### ***Response to Arguments***

12. Applicant's arguments filed 10 March 2004 have been fully considered but they are not persuasive.

13. Applicant argues that the combination of the specific detergent and the conical projections prevents hairs from tangling however Homma teaches the claimed detergent including the function of improved combing or brushing. The detergent claimed, including property of preventing tangling of the hair, is not new as exemplified by Homma. This would be true for any sized projections.

14. Applicant argues none of the references disclose or suggest a combination of flat side surface and an imaginary concave plane formed by the apices of the projections extending from the flat side surface. The examiner respectfully disagrees. Van Sant clearly teaches this as shown in figure 2. Figure 2 clearly shows a flat surface on top of the cover and the concave

imaginary surface formed by the apices of the projections as further supported on page 2, lines 25-29.

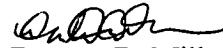
*Conclusion*

15. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

16. A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

ddd  
19 May, 2004  
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Art Unit 3764